E. S. B. Miniature Cells
Vol. I

NI-FE CELLS EXP. #4.

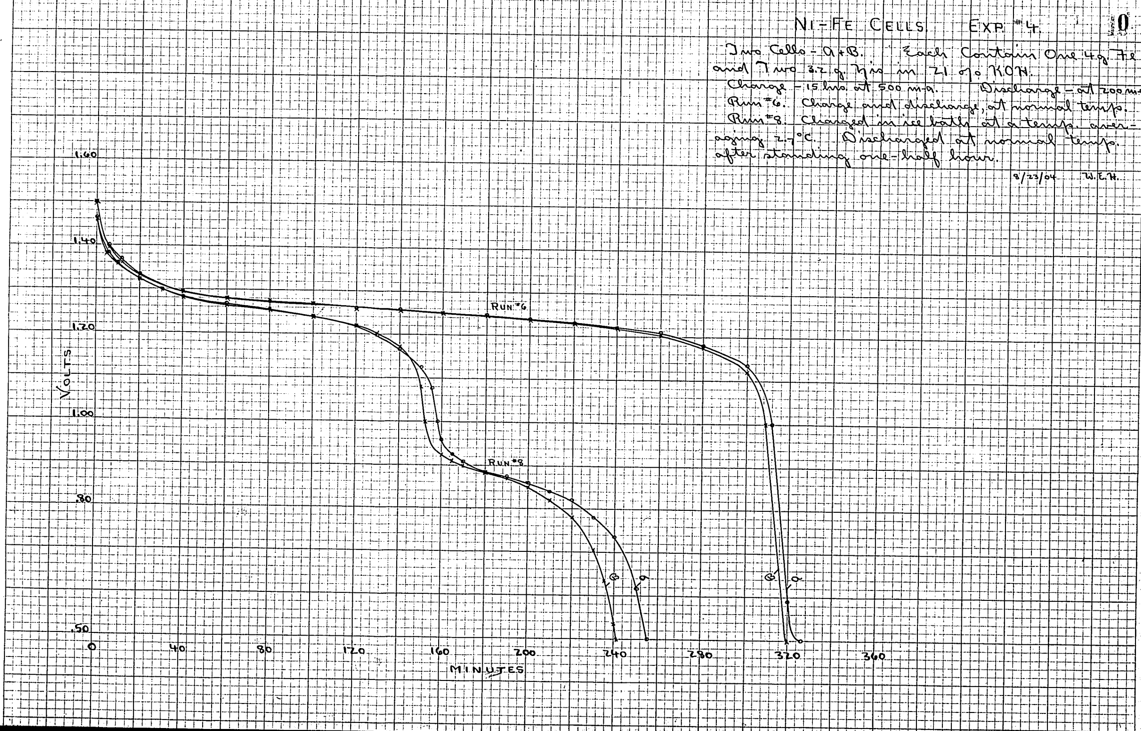
Two Cells - a + B. Each Contain One 4 g. Fe and Two 3.2 g. Ni's in 21 % KOH.

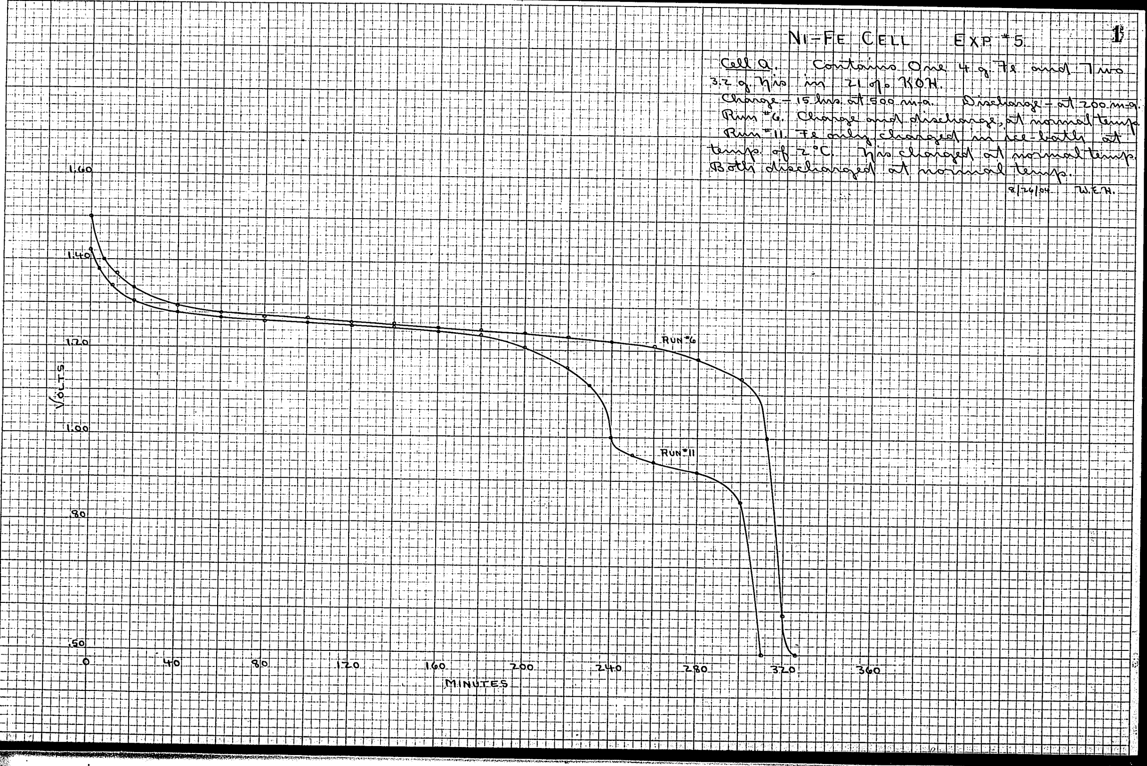
Charge - 15 hrs. at 500 m-a. Discharge - at 200 m-a

Run #6. Charge and discharge, at normal temp.

Run #8. Charged in ice bath at a temp. averaging 2.7 °C. Discharged at normal temp. after standing one-half hour.

8/23/04 W.E.H.





NI-FE CELL EXP. #5.

Cell a. Contains One 4 g. Fe and Two 3.2 g. Ni's in 21 % KOH.

Charge - 15 hrs. at 500 m-a. Discharge - at 200 m-a.

Run #6. Charge and discharge, at normal temp.

Run #11. Fe only charged in ice-bath at temp. of 2°C. Ni's charged at normal temp. Both discharged at normal temp.

8/24/04. W.E.H.

NI-FE CELL. EXP. #5.

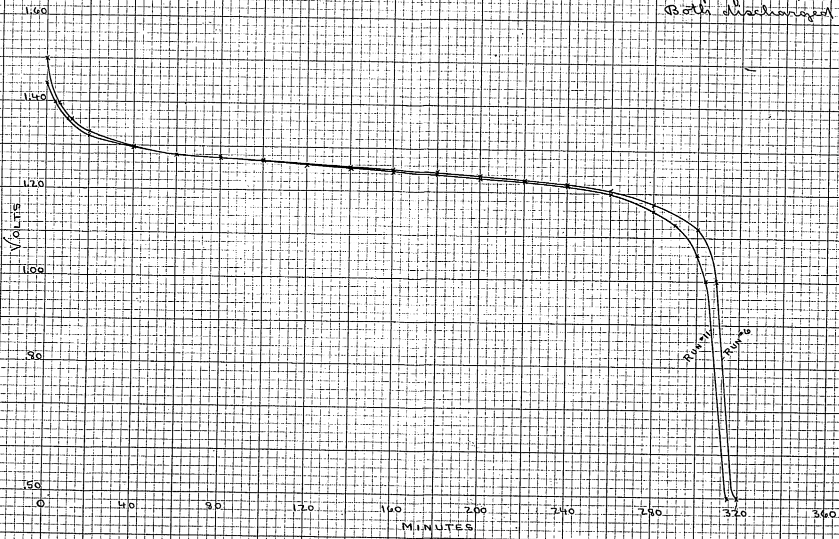
Cell B. Contains One 4 g. Fe and Two 3.2 g. Ni's in 21 %. KOH.

Charge – 15 hrs. at 500 m-a. Discharge – at 200 m-a

Run #6. Charge and discharge at normal temp.

Run #11. Ni's only, charged in ice-bath at temp. of 2°C. Fe charged at normal temp. Both discharged at normal temp.

8/26/04. W.E.H.



FE CELL EXP. #20.

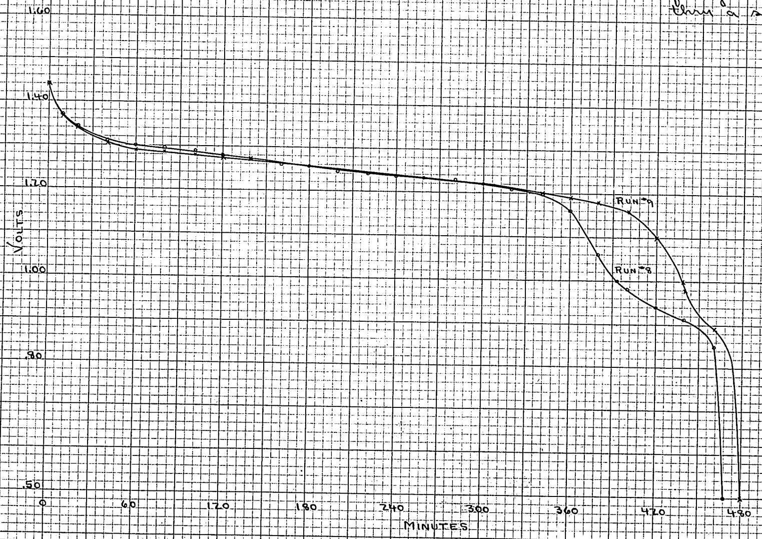
Cell Contains One 4 g. Fe and Four 3.5 g. Nis in 21 % KOH.

Charge - 15 hrs. at 400 m.a. Discharge at 200 m.a.

Run #8. Last run of the regular series of tests.

Run #9. A duplication of Run #8, but after fully charging cell and discharging it thru a short-circuit.

7/24/05 W.E.H.



FE CELL. EXP. #29.

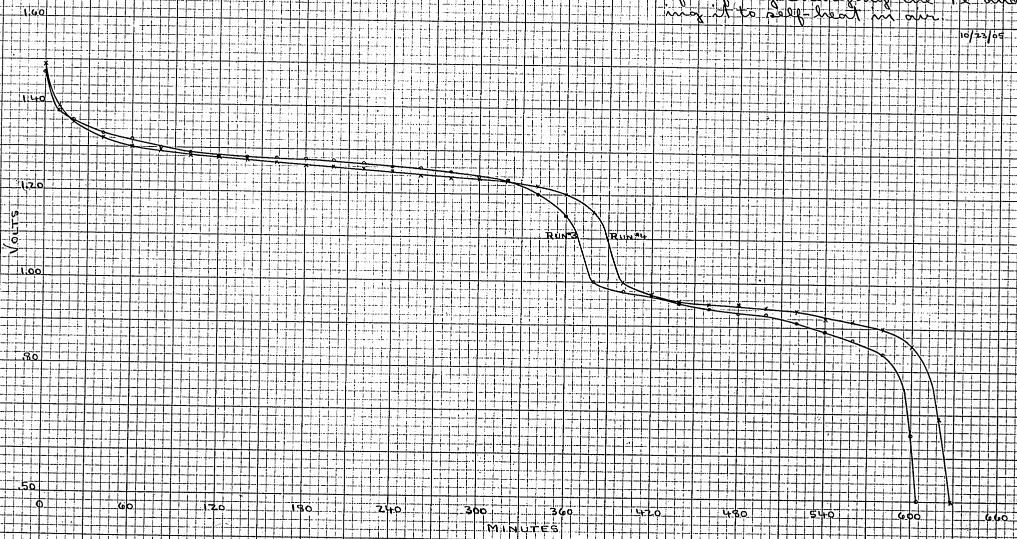
Cell contains One 4 g. Fe and Six Regular Ni's in 21 %. KOH.

Charge - 15 hrs. at 400 m.a. Discharge at 200 m.a.

Run #3 A normal run.

Run #4 A duplication of Run #3, but after fully charging the Fe and allowing it to self-heat in air.

10/23/05 W.E.H.



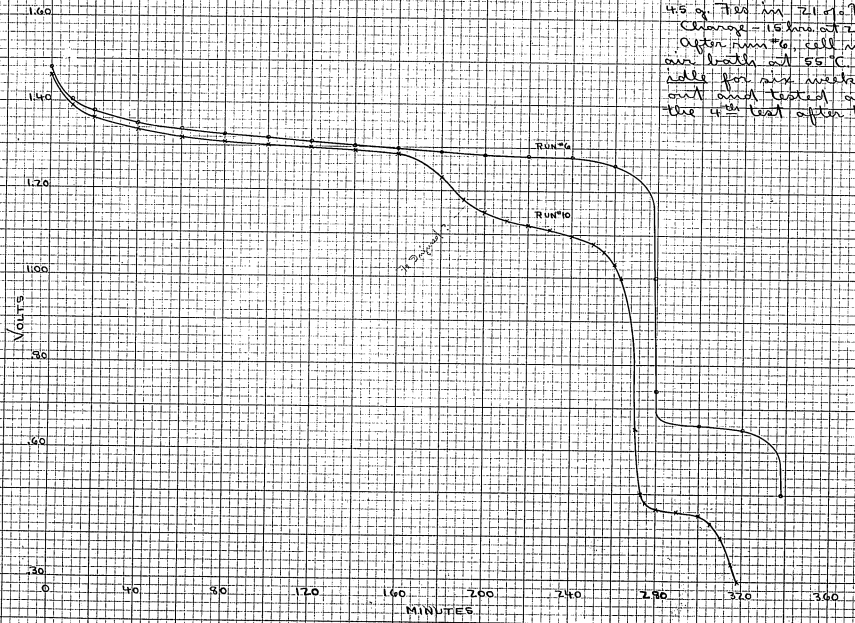
NI CELL. EXP. #21.

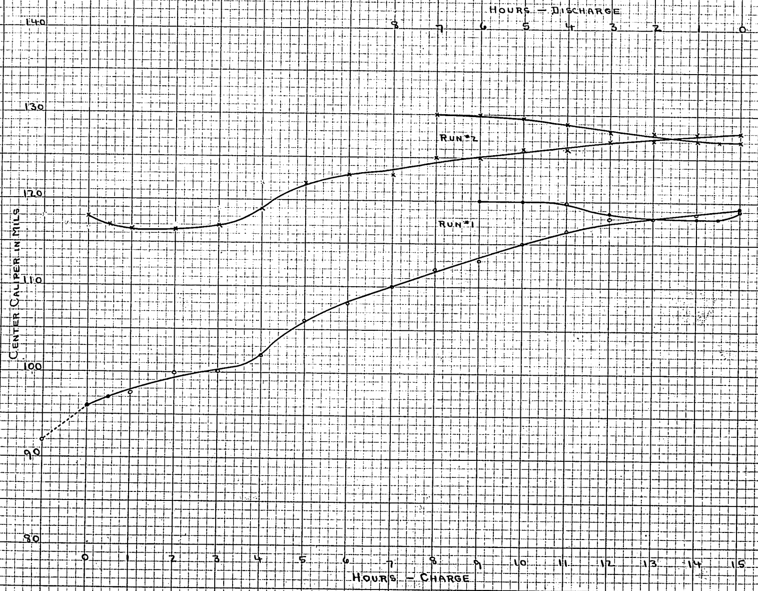
Cell B. Contains One 3.2 g. Ni and Two 4.5 g. Fes in 21 % KOH.

Charge - 1.5 hrs. at 200 m-a. Discharge - at 100 m-a.

After run #6, cell was placed in a hot air bath at 55°C. and allowed to stand idle for six weeks. It was then taken out and tested as before. Run #10 is the 4th test after taking out of hot bath.

9/13/05 W.E.H.





NI CELL. EXP. #24.

Cell contains One 3.2 g Ni and Two Regular Fes in 33 % KOH.

Rate of Charge — 200 m-a.

Rate of Discharge — 100 m-a.

The curves show the swell of a regular Ni pocket in 33 % KOH, during charge and discharge. (The dotted line indicates the swell of the dry pocket on soaking in the electrolyte.)

15 Minutes intervene between each charge and discharge, and 3 days intervene between run #1 and run #2.

All measurements were taken at a marked point in center of pocket.

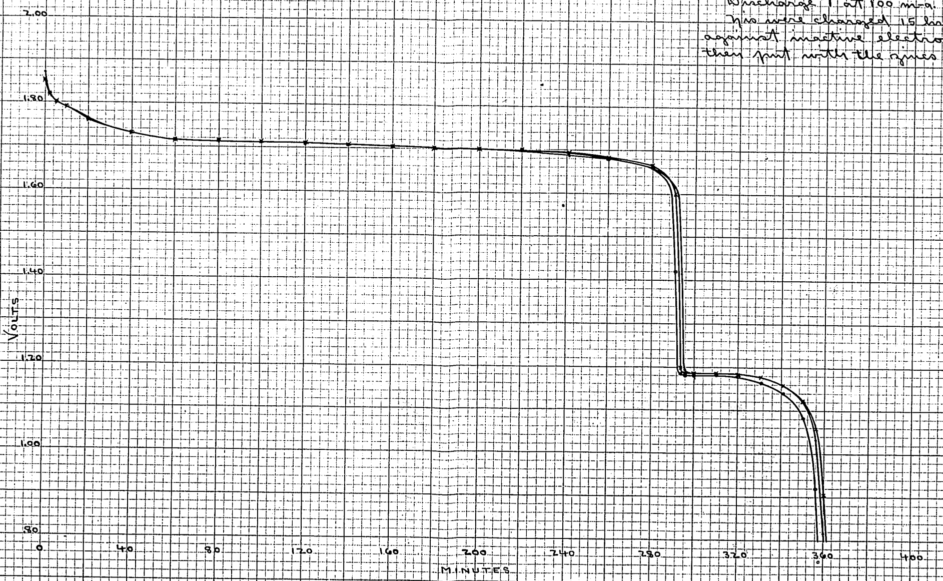
10/14/05 W.E.H.

Ni Cells. Exp. #464

Three Cells. Each Consists of One 3.2 g. Ni and One Lalande Zinc Plate (25 a-h Capacity) in an Excess of 21 %. KOH.

Discharge #1 at 100 m-a.

Nis were charged 15 hrs. at 200 m-a against inactive electrodes, and were then put with the zincs for discharge.

9/15/06 W.E.H.